

EN200 COURSE NOTES

Principles of Ship Performance



Fall Semester
Academic Year 2003

EN200 COURSE NOTES

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Introduction

Whether we like it or not, the world is becoming more and more technologically advanced. The modern individual must be able to think from a technological view point to be able to contribute in this world. As an officer making policy decisions, in charge of skilled enlisted personnel, in charge of highly technologically advanced equipment or working with civilian technicians and engineers, you will benefit from a solid grounding in engineering.

This fact has been recognized by the Academy and consequently there is a requirement for students studying Group II, Group III and General Engineering majors to attend certain engineering courses. Principles of Ship Performance - EN200 is just such a course. 'Boats' as it is affectionately known is even more relevant to you as Naval and Marine Corp Officers. Even if your future career path takes you into the skies or the mud, you will interface with things that float -- you have entered a seafaring service.

The Course

The course has been designed to promote your understanding of the way ships operate. Why they float - why they float mast up - why they wobble about - what makes them move. To achieve this you will be introduced to a number of different engineering practices including mathematical approximation, graphical interpolation and engineering modeling. They will often appear difficult to comprehend at first, however with help from your instructor and patience you will master these techniques. Remember they are being taught for a purpose, to give you an understanding of boats and to provide you with a basic engineering knowledge.

Course material has been organized into a number a chapters. Each can be viewed as 'stand alone' sections of the course, but often information and techniques used in early chapters will be called upon again. The first chapter delivers a basic level of engineering knowledge that you should be familiar with before the course begins. You are advised to read this chapter before your first class as your instructor will only have time to provide a brief overview of its contents. If there are areas of Chapter 1 you are uneasy with, raise it early. The understanding of this information is vital for the Naval Engineering that follows.

Laboratories

There are 13 laboratories in EN200 ranging from computer labs to experiments utilizing the 120 ft towing tank in the hydrolab. They are a vital element in your understanding of the course material totaling 40% of the time available per week. The theory and techniques you have experienced in the classroom will come to life in the lab periods. Many labs have pre-lab sections. In these, the theory and techniques to be employed in the lab will be explained. Make sure you complete any pre-lab before the lab. In this way you will be prepared for the work and make labs the enjoyable learning experience they have been designed to be.

Classroom/Instructor Policy

Your section instructor will be passing out his or her own teaching policy, probably during your first EN200 class. Indeed, the every day classroom environment is their responsibility. However, in general you can expect homework after most classes and frequent quizzes. These are not merely an assessment tool, but also a means by which you can assess your own progress in the subject. To provide this feedback, your instructor will strive to return homework, quizzes and laboratory reports to you at the earliest opportunity, and certainly within a week of submission. Failure to submit work will not only hurt you in terms of your mid term and final grades, but also remove this valuable self- assessment tool.

Quizzes, Tests and Exams

As mentioned above, you can expect many quizzes during the course. They will often be unannounced and will quiz the current area of study.

There will also be two X-period, common exams, one at the 6 week point and the other after 12 weeks. The 6 week test will examine all work up to that point, the 12 week test will cover work after the 6 week point and up to 12 weeks. Your instructor will inform you of the time and location.

The final exam lasts for 3 hours and covers the whole of the course. It is a common exam taken by all EN200 students.

Grading Policy

The grades you achieve at the 6 and 12 week points of the course are totally your instructor's responsibility. However, your final grade will be constructed from your efforts according to the following breakdown.

6 week exam	20%
12 week exam	20%
3 hour final exam	30%
Quizzes	15%
Labs/Homework/ Participation	15%
Total	100%

Conclusion

I hope you enjoy the learning experience you are about to enter. Certainly, the facilities in Rickover Hall are some of the best available anywhere in the world and your instructors can add a vast array of technical experience/fleet experience to the course material. Make the most of your time. Come prepared to lessons and laboratories. Use the facilities and experience available. As with all things in life, you will get out of EN200 as much as you are willing to put in.

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